Smart Age-friendly Cities | Age-friendly Smart Cities!

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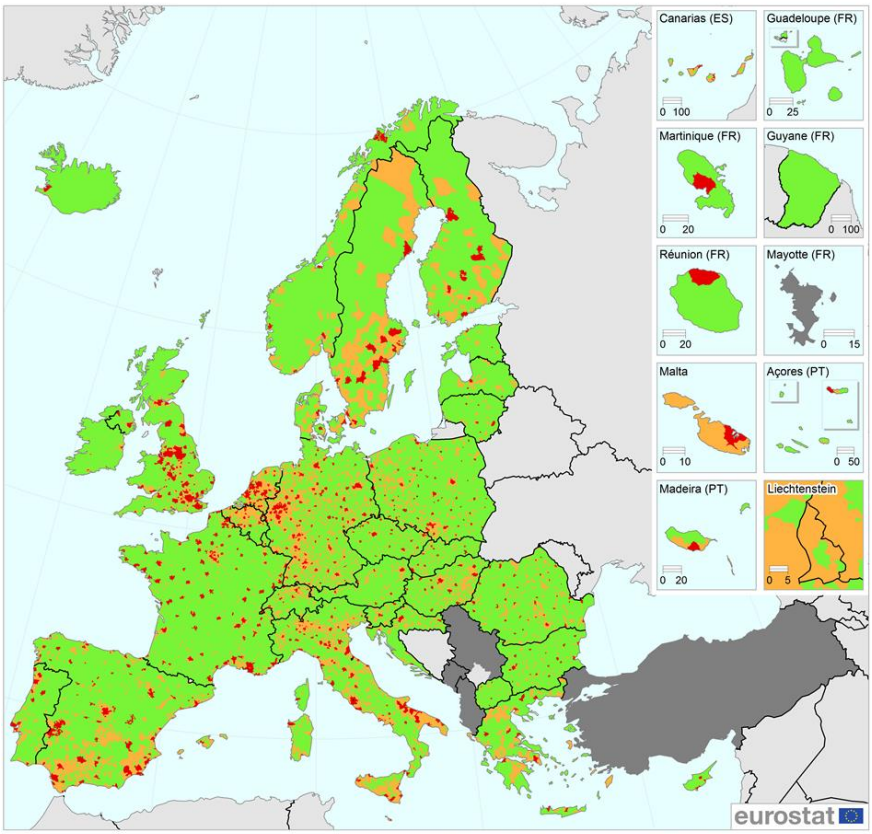
Introduction

Urbanisation

Nowadays, almost three quarters of the European Union's population live in urban areas (cities, towns and their suburbs).[1]

Degree of urbanisation for local administrative units level 2 (LAU2) (¹)



(¹) Based on population grid from 2011 and LAU 2014. Denmark, Greece and Malta: local administrative units level 1 (LAU1).

Source: Eurostat, JRC and European Commission Directorate-General for Regional Policy

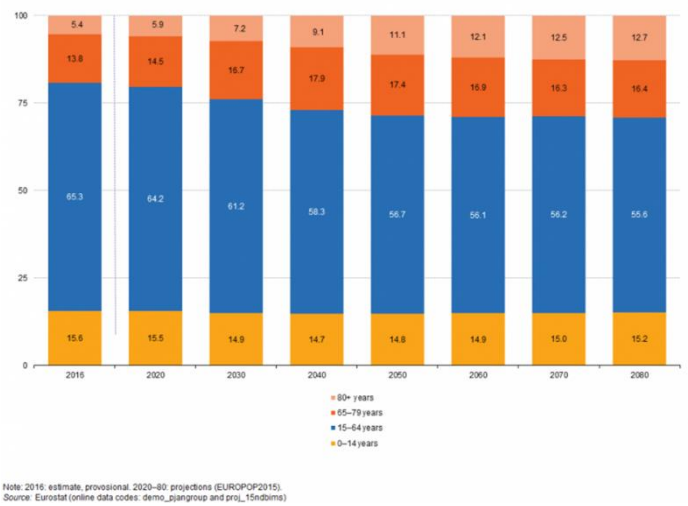
Cities and metropolitan areas are major contributors to national economies and play a key role as nodes in global markets. Moreover, at a time of deepening globalisation and increasing international competition for investment, metropolitan regions have become the targets of a wide range of public interventions. As a result, throughout the OECD, urban development policies seek to address a range of issues – from managing urban expansion and congestion to fostering competitiveness, innovation, social inclusion and environmental sustainability.

Ageing

Another development in Europe is ageing of the population. The number of people aged 65 and over already outnumbers the group of children and young adolescents. The number of older people will grow till approximately 27% of the total population from 2040 onwards.

[1] OECD, Ageing in cities, 2015.

Europe is the most aged continent of the world. Remarkable is the large amount of people over 80 years and older that will take part in the group of 65+.



Note: 2016: estimate, provosional. 2020–80: projections (EUROPOP2015).
Source: Eurostat (online data codes: demo_pjangroup and proj_15ndbims)

OECD found that cities in advanced economies are growing older more quickly than rural areas. In OECD cities, 14% of people were over 65 in 2011 up from 12% in 2001. The trend of ageing will put pressure on cities to rethink some infrastructure and plan for an ageing labour force, change revenues, rising demand for affordable housing and higher spending on health and social care.

European action on urbanisation and ageing

Since a couple of years, two bottom-up initiatives have been launched in Europe to address the challenges of urbanisation and ageing. European Innovation Partnerships have been created, one for Smart Cities and Communities (EIP SCC) and one for Active and Healthy Ageing (EIPonAHA). Through working on action plans in several action groups, the EIPs intends to bring together the quadruple helix: citizens, government, commerce and research.

EIPonAHA, Action Group D4 *Age-friendly buildings, cities and environments*' objective is to connect with the EIP on Smart Cities and Communities to make sure that the principles of Age-friendly Environments are embedded in concepts, theory and practice. The objective picks up on and promotes the need for an integrated "health in all policies approach". Additionally, the Action Group wants to extend the smart cities principles for older citizens' participation to rural areas and to promote the inclusion of the "rural" dimension into the EIP on Smart Cities.

In this publication we will focus on the possible match between age-friendly environments and the areas of EIP SCC: 1. mobility, 2. built environments and 3. integrated infrastructures. These areas will be discussed starting from the scope of older people and look for sustainability, quality of life and resilience. We will look at the needs of and opportunities for older people themselves, opportunities for ICT and other businesses and opportunities for remote and rural areas. First of all, we'll start with a short description of both Innovation Partnerships.

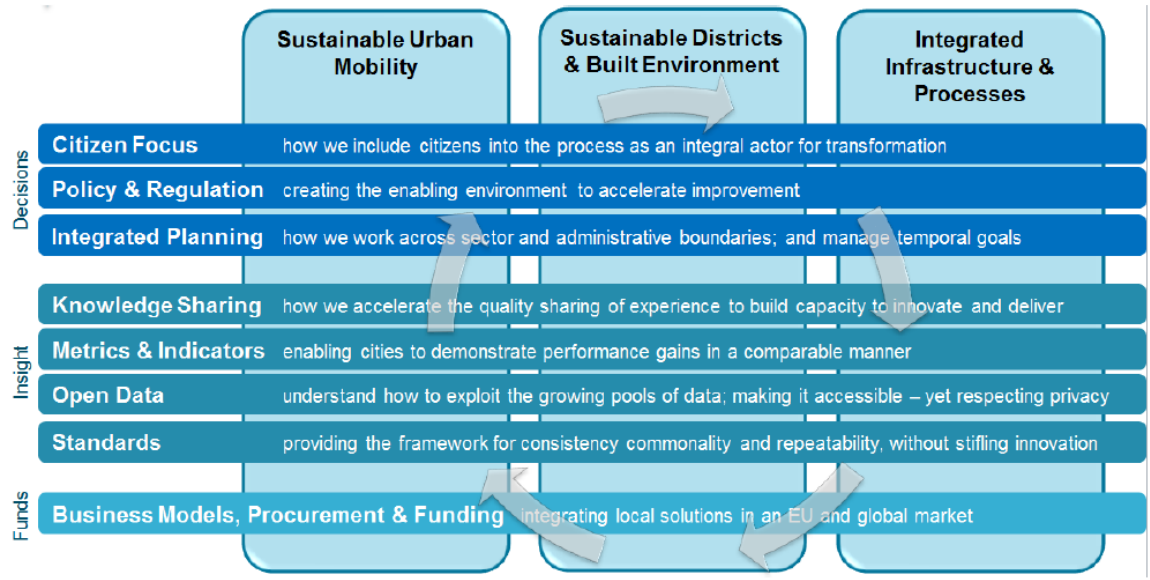
Smart Cities

In answer to city challenges like sustainability, quality of life and resilience the smart cities concept arose, and many cities are working along that concept. On European level, cities and other stakeholders are gathered in the European Innovation Partnership on Smart Cities and Communities. The EIP SCC defines that "Smart cities should be regarded as systems of people interacting with and using flows of energy, materials, services and financing to

catalyse sustainable economic development, resilience, and high quality of life; these flows and interactions become smart through making strategic use of information and communication infrastructure and services in a process of transparent urban planning and management that is responsive to the social and economic needs of society."[2] Strategically and operationally the EIP SCC concentrates on the next three specific, vertical areas:

- Sustainable Urban Mobility
- Sustainable Districts and Built Environment
- Integrated Infrastructures and processes

These three areas interact with three main horizontal layers concerning decisions, insight and funding (see picture below).



Roadmap 2017 (Marketplace EIP SCC): …

Age-friendly environments

According to WHO, age-friendly environments foster health and well-being and the participation of people as they age. They are accessible, equitable, inclusive, safe and secure, and supportive. They promote health and prevent or delay the onset of disease and functional decline. They provide people-centred services and support to enable recovery or to compensate for the loss of function so that people can continue to do the things that are important to them.

The purpose of age-friendly environments is health and well-being for all, regardless of age, sex or gender, cultural or ethnic background, wealth or health status. Older people may experience negative attitudes and discrimination based on their age. Creating age-friendly environments acknowledges diversity, fights ageism and ensures that everyone has the opportunity to fully participate.

Creating barrier-free and affordable housing, accessible public spaces, and transportation enable people to stay independent and participate in community life. An age-friendly

[2] European Innovation Partnership on Smart Cities and Communities - Strategic Implementation Plan, 2013.

environment reduces the risk of falls and prevents the neglect and abuse of vulnerable older people by increasing the safety of the natural and built environments and the security and protection of older people in the community. Older people play a crucial role in their communities – they engage in paid or volunteering work, transmit experience and knowledge, and help their families with caring responsibilities. These contributions can only be ensured if societies foster their health and participation.

Areas and opportunities for smart age-friendly cities

Mobility

Out-of-home mobility is necessary for participation in meaningful, social, cultural and physical activities and therefore it helps to combat isolation. Also is mobility related to the basic human need of physical movement and promotes healthy ageing.

Mobility on old age however, might be a challenge. Due to physical and/or cognitive decline and impairments activities like walking, climbing stairs, cycling, are not as easy anymore as in earlier years. Loss of cognitive capacities makes it more difficult for people to cope with changing circumstances, to understand how to travel and to change from transport modalities, or even it occurs that people get lost. To guarantee that people despite age and physical and/or cognitive impairments are able to get out-of-home and can remain mobile extra attention is needed.

The EIP SCC stresses the need for substantial changes in Europe's transport systems, as well as in the mobility behaviour of people and businesses in urban areas. Solutions concern the creation of an efficient and integrated mobility system that allows for organising and monitoring seamless transport across different modes; increasing the use of environmentally-friendly, alternative fuels; creating new opportunities for collective mobility. The proposed solutions lead to a decreased environmental impact.

EIP SCC focuses on three actions:

1. Better integration and management of collective city transport for door-to-door seamless multi-modality
2. Better electrification of collective city transport
3. Improved urban freight logistics and distribution

Recommendations D4

The outcomes of the actions of the EIP SCC will be very helpful to improve the out-of-home mobility among older people. Especially we endorse the actions that foster seamless door-to-door multi-modality in urban transport and integrated mobility planning. In this case we highly recommend that the seamless multi-modality of transport is also adjusted to the needs of older people (accessible for wheelchairs, strollers; recognizable and understandable to use). To make certain that transport modalities are usable for older people, it is highly recommended to involve older people in co-designing/ co-creation of these facilities.

Sustainable in the sense of clean power for transport and cleaner vehicles will have big environmental impacts that is also for the benefit for all, older people included.

Built environment

In most cities houses and public buildings are built in former centuries and according to the needs and wishes of the populations that lived in cities at that time. With a growing ageing population it is needed that attention is paid to housing adaptations and the accessibility of public buildings. To be more specific: we think of better signage for people with hearing and visual disabilities, wheelchair accessible and walkable pathways with walking aids, and elevators.

EIP SCC focuses to address the challenges of energy use reduction, environmental impact and carbon footprint, entailment of competitive industries for jobs and growth and at the same time ensure societal and social development and the well-being of citizens. To realise this, EIP SCC defined four potential actions:

1. Integration of a scalable design and multi-criteria toolkits for existing and new near to zero buildings and districts
2. Develop auditing tools/systems and development of framework on measured variables for existing as well as new buildings and districts
3. The Green Network of large scale (deep) refurbishment of city districts for energy efficiency Introduction
4. Large scale deployment of zero energy new districts and zero energy new buildings

Recommendations D4

Despite the fact that energy use reduction and other measures are very much needed to combat the challenges of climate change, the actions of EIP SCC totally ignores the changes in the populations of cities. We recommend to also take into account the needs for more age-friendly housing, infrastructure and buildings. We consider that these two mainstreams of actions fit perfectly so that reduction of footprint and age-friendly buildings will be achieved at once.

Integrated infrastructures

Older people benefit most to live in cities where public information and communication is sufficient and understandable and where supportive networks and integrated services are available.

EIP SCC describes that significant and as yet insufficiently tapped value is offered by integrating the various existing and new infrastructure networks within and across cities – be they energy, transport, communications or others – rather than duplicating these needlessly. This point applies, both, to active and passive infrastructure. Many such infrastructures are ageing; budgets to replace them are stretched; they are procured and managed ‘in silos’; yet the potential afforded to cities and their customers through new joined-up approaches, exploiting modern technologies is substantial. This is achievable; however it will take sustained commitment from multiple parties to access value.

Actions in this area are:

1. “The Humble Lamppost”
2. City Information Platforms / Urban Platform

Recommendation D4

On behalf of older people we endorse the further development of excellent city information platforms, accessible information and safety. As stated before we recommend to involve older people in the development of both actions, guaranteeing they are accessible to people with impairments and/or special needs.

Conclusion

EIP SCC focuses strongly on mobility, energy use reduction and data sharing. As D4 group we endorse most of the EIP SCC actions, however we would recommend to pay more attention to the changing population of cities and involve (older) citizens in the development of smart cities and communities.

Aiming at a more philosophical analysis, smart cities' main goals have been very focused on energy and communications, which is very important of course, but would gain on being guided by a major purpose than only these. Technologies, communications and smart specialization should, on our opinion, be seen as tools – not goals on themselves – to provide more inclusive, responsive and sustainable environments for people of all ages.

In this regard we strongly recommend also to involve in the EIP-SCC the social and health services in cities. These services are necessary to help to keep city populations healthy and vital. Both social and health services could benefit a lot from involvement in mobility plans: older people can find the best ways to the nearest services available. Health and social services possess many buildings that also need to be improved in order to reduce energy use. Data sharing and information is very needed to further work on prevention of unhealthy lifestyles and diseases.

Greater alignment between EIP-SCC an EIP-AHA operational plans and actions offer the opportunity to aim at common social, environmental and economic impacts in a more integrated fashion while addressing a rich 'society for all ages' approach. However, achieving more cross-disciplinary coherence at a local level does challenge greater multi-sectoral and multi-stakeholder collaboration, and the more active and creative participation of citizens, both directly and through civic society mediation. At the urban level, the convergence of broad smart city, health city, age-friendly city, and green city initiatives with more specialised dementia and 'diabetes aware' initiatives are pointing towards news ways of working, planning, implementing and evaluating progress and impacts that can span traditional silos.

The partners within the EIP-SCC and the EIP-AHA are committed to innovation towards the goals of smart, sustainable and inclusive growth and development. As we prepare for the next stage of the EIPs out to 2020, and attract new partners and commitments, it might be worthwhile to consider a cross-EIP action group spanning SCC and AHA to identify and galvanise cooperation and support actions for partners. This might help environmental, infrastructural, economic and health and social care stakeholders at local and regional levels to look to joint commitments that can deliver more integrated 'smart and age-friendly community' impacts in more scalable and sustainable ways.